

Staten Island's Gold Coast 5.2 miles from St. George to Arlington.



Photo of waterfront clean up at Van Name and Van Pelt, Mariners Harbor

The North Shore Waterfront Conservancy of Staten Island, Inc.

229223



Staten Island's Gold Coast 5.2 miles from Arlington to St. George

Author: Beryl A. Thurman

Contributing editor: Joe M. Wright

Copyediting and formatting: Lee Sakellarides

Photo editing: Scott Melançon

Photos: Nan Smith, Tony Rose, Andy Wilner, and Beryl Thurman

Cover photo: Waterfront cleanup volunteers at Van Name and Van Pelt, Mariners Harbor, 2007

In memory of Tom and MaryAnn Ursamanno, Assemblywoman Elizabeth Connelly, Beverly L. Curry, Wally Alveraz, Assemblyman John Lavelle, Loretta Kiersky, Yolanda Brach, Mamie Charleston, Curtis Franklin, my grandparents, and all those dear.

Table of Contents

Acknowledgments.....	iii
Introduction.....	iv
The Gypsum Plant, New Brighton.....	1
Atlantic Salt Company, Inc.....	2
Jersey Street Department of Sanitation Garage.....	4
Con Edison Plant.....	5
Caddell Dry Dock.....	6
Van Street and Thompkins Court.....	7
Thompkins Court.....	9
The Blissenbach Boat Marina/West Brighton Park and Boat Marina.....	11
The Department of Environmental Protection (DEP) Garage, NYCTA Metropolitan Transit Authority (MTA) Depot.....	14
Department of Environmental Protection Sewer Treatment Plant.....	16
Sedutto's Ice Cream Factory.....	18
Flag Container Company.....	20
Edkins' Auto Sales Inc. and Salvage Yard.....	22
Truscanti Boat Company.....	24
Archer Daniel Midlands Company/Staten Island's Manhattan Project.....	25
Mariners Marsh and Arlington Marsh.....	28
The North Shore Rail Line.....	32
The Army Corps of Engineers' Seven-Year Blasting and Dredging Project in the Kill Van Kull (1999-2006).....	34
Shoreline of Van Name and Van Pelt.....	36
Traffic.....	37
Parking.....	38
Conclusion.....	39
Appendix: Chemical Terminology.....	40
References.....	43

Acknowledgments

We would like to thank the Department of Environmental Conservation's Department of Environmental Justice Department for their support and funding in the writing of this book.

Special thanks to NSWC members, Mom and Dad, my friends and neighbors, the residents of John Street, J. M. Wright, Jessamyn Lidasan, the College of Staten Island, Wagner College, Kerry Sullivan, Ida Sanoff, and Jimmy Scarcella of Natural Resources Protective Association.

Dee Vandenberg of Staten Island Taxpayers' Association, Nan Smith, Tony Rose, Anna Porter, John Kilcullen, Angela D'Aiuto, The Kaufman's, Rich Brown, of The North Shore Waterfront Conservancy of Staten Island, Inc. and Catherine Barron, Bill Morris of Mariners Marsh Conservancy. Andy Wilner of New York, New Jersey Baykeepers, and Reed Super of Riverkeeper, Inc.

Edna Greenwich, Red and Pat Glorioso, Marilyn Carter, Margaret Harris, John Foxell, Quinton, Jack Hynes, Sr., Donna DiMieo, Doug Mitchell, Dennis Gaeta, Warren McKenzie and the Reform Church, and the VFW Post in Mariners Harbor.

The *Staten Island Advance*, *The Staten Island Register*, *The New York Times*, and NY1.

The NYC Department of Parks and Recreation, SI Borough Hall's Topo Department all the fishermen along our shores, and the many people that we have met and enjoyed along the way.

Introduction

The concept of environmental justice is new to many people. The Environmental Justice Act basically says that regardless of your sex, age, race, religious beliefs, social and/or economic status, you are entitled to clean air, water, and soil. That means that no one, not even our government, has the authority to place any of these groups in a situation where they are exclusively burdened with industries or situations that will negatively impact them to the point of preventing them from achieving life, liberty, and the pursuit of happiness.

There has been a consistent selectivity in how our government responds to certain environmental issues. Rarely have the responses been sufficient to improve the quality of life for the residents most impacted by them.

What cannot be denied is that, even though Staten Islanders and New York City government could see the injustice resulting from the burden on the immediate community and Staten Island with the Fresh Kills Landfill for 45 years, very few have acknowledged the same injustice that has happened along this 5.2-mile stretch of Richmond Terrace's North Shore, adjacent communities, and waterfront, and that this injustice has been going on for over a century and a half of industrial development.

This report identifies how 21 selected sites along Staten Island's North Shore waterfront may have become contaminated and describes how that contamination changed the way both Staten Islanders and outsiders view the communities along Richmond Terrace. All of these sites are 70 feet or less from residential areas and most are near a water source. There are other sites of concern along the north shore of Staten Island, but they are not included in this report primarily due to time constraints. Staten Island has an area of approximately 58 square miles of land and approximately 35-44 square miles of water, with one-fifth of the city's shoreline and nearly half of its waterfront zoned for industrial use—by far the highest proportion among the city's five boroughs.

Our government is satisfied when a business says that it contributes to the community. But when a business says that it contributes to the community, a question should be asked: "In what way and where?" While contributing to a hospital is always good as it benefits the entire community. For a business that is located in an under-served community, establishing organized sports programs for that community's youth, or an internship and apprenticeship work program, a scholarship for its teenagers and young adults carries a lot more weight. In addition to that, every business that is in a waterfront community should be environmentally aware and make sure that they are not just meeting the law's expectations, but going beyond those expectations to maintain a clean, safe environment for everyone.

Each year Staten Island residents receive advisories that tell us not to eat locally caught fish because of chemical contaminants. These communities and industries along the Kill Van Kull are in the direct path of one of our largest tidal wetlands, Arlington Marsh. Isn't it time that we acted in a manner that would indicate that we know this?

Instead of telling people not to eat the fish, why not work to make our waterways clean enough, so that they can?

Any business that wishes to operate on Staten Island must live up to these standards and so must our government. Everyone must know and understand that people, wildlife, and plant life are not disposable. With that squarely and soundly in mind, we must do the right thing in protecting all of our residents and our environment so that when someone calls our North Shore "Staten Island's Gold Coast," it won't be an oxymoron. It will be based on reality, because our combined efforts will have made it true.

The Gypsum Plant, New Brighton

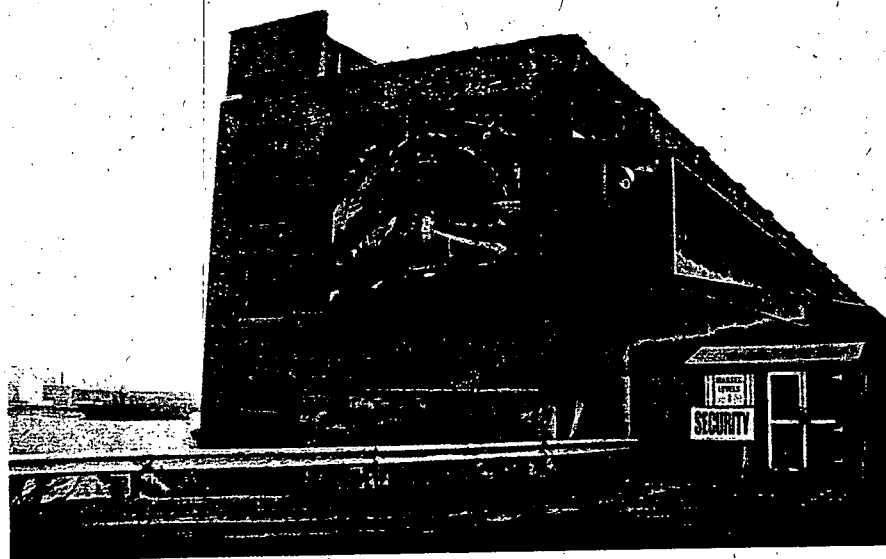


Figure 1: Gypsum Plant, 2008

History

In the early 1800's, before Staten Island's Industrial Revolution, it was said that this location was open beach waterfront. However, from 1898 until 1917, the location that is known to Staten Islanders as the Gypsum Plant was J. B. King Company's Windsor Plaster Mill Company. U.S. Gypsum Company purchased this property in 1924 from J.B. King Company and remained there until 1976.

It is possible that, during this time period some variations of plaster contained powdered silica and asbestos. Asbestos is a known carcinogen when inhaled in powder form especially by people who smoke. Inhalation causes asbestosis. It was also found that family members who washed the clothing of family members, who worked around asbestos, came down with mesothelioma from breathing the asbestos dust in the clothing.

Current Conditions

U.S. Gypsum Company went bankrupt paying for all the litigation involving asbestos in its products. The Gypsum Plant was recently purchased by Atlantic Salt Company, Inc. and is being demolished in stages.

Possible Contaminants

Possible contaminants for this site: silica and asbestos. Silica is the chemical compound of silicon dioxide. In inhaling finely divided crystalline particles of silica dust, in large enough amounts, can lead to silicosis or even cancer. Silicosis, also known as Grinders disease or Potter's rot, is the name given to occupational lung disease caused by inhalation of crystalline silica dust. Gypsum by itself seems to have no adverse affects, and is used in the making of drywall, plaster, fertilizer, soil conditioner, plaster of Paris, tofu as a water hardener for brewing, and as an ingredient in Twinkie snack foods.

Atlantic Salt Company, Inc.



Figure 2: Atlantic Salt Mounds, 2008

History

This property, located at 561 Richmond Terrace, New Brighton, remained oceanfront property from 1898 until 1917 and was owned by Green and Griswald. Who or what they were is not known. However, according to Borough Hall's Topo Map Department, it would seem that by the late 1800s, J.B King Company was leasing or had purchased the site for its Windsor Plaster Mill Company. By the 1950s, U.S. Gypsum Company had purchased this property.

Atlantic Salt began using this location for the storage of its road salt in 1977. Atlantic Salt Company is part of Eastern Minerals Inc. The salt is mined in Northern Ireland and brought to Staten Island by ship.

By the late 1970s through 1983, the property belonged to Regal Estates Inc. In 1984 the City of New York took title to the property through tax foreclosure. In 1994 after they filed an application for the release of the property and paid the consideration necessary for the release, the property was restored to its former owner Regal Estates Inc. An easement on the property belonging to the City of New York for the Staten Island railroad was issued on February 8, 1995. Regal Estates Inc. is owned by The Mahoney Family, who are also owners of Atlantic Salt Company, Inc.

Current Conditions

The concern here lies with the location of the salt mounds in relationship to the Kill Van Kull, plus the fact that the salt mounds are uncovered and are exposed to the elements.

Possible Contaminants

The product is known to have an anti-caking agent, ferric-ferrocyanide: <http://www.epa.gov/fedreg/EPA-WATER/2003/October/Day-06/w25272.htm> The EPA has determined that ferric ferrocyanide is one of the "cyanides" within the meaning of 40 CFR 401.15, 40 CFR 302.4, and Table 302.4.

Therefore it would appear that ferric-ferrocyanide is toxic. There are no buffers protecting the residential community that is 70 feet away from the daily operations of the company. Atlantic Salt also recognizes that their drainage and filter system is inadequate for this waterfront location.

Ferric ferrocyanide is like any other cyanide once entering into the body or the estuaries. The effect upon the body would be based on each person's ability to tolerate the levels of the toxin. In the estuaries it would reduce the survival ratio for the number of fish and wild life that came into contact with it. The salt is corrosive to metals, woods, etc. High concentrations of salt can cause a Dead Sea effect killing any living thing that is around it.

Jersey Street Department of Sanitation Garage



Figure 3: Jersey Street Sanitation Garage, 2008

History

The Department of Sanitation Jersey Street Sanitation Garage, located at 539 Jersey Street, was once the Staten Island Trolley Storage and Turn Around. According to Borough Hall's Topo Map Department it was the Trolley Round House from 1898 until 1917, when it then became Richmond Light and Rail Road Company and Car House. This location acted as a trolley/railroad round house and electrical power plant until approximately 1923.

Current Conditions

With its current Sanitation use there are odors, diesel fumes, dust, dirt and an infestation of rodents. There are no buffers between the operation of this facility and the residential community that is next door to the site and directly across the street.

Possible Contaminants

Contaminants usually found with Trolley uses are various oils and petroleum that were used in day to day maintenance. Former trolley storage locations are considered potential Brownfield sites. And being that this location was also a power plant, possible contaminants from that use include arsenic, chromium, cadmium, mercury, and PCB's.

Con Edison Plant

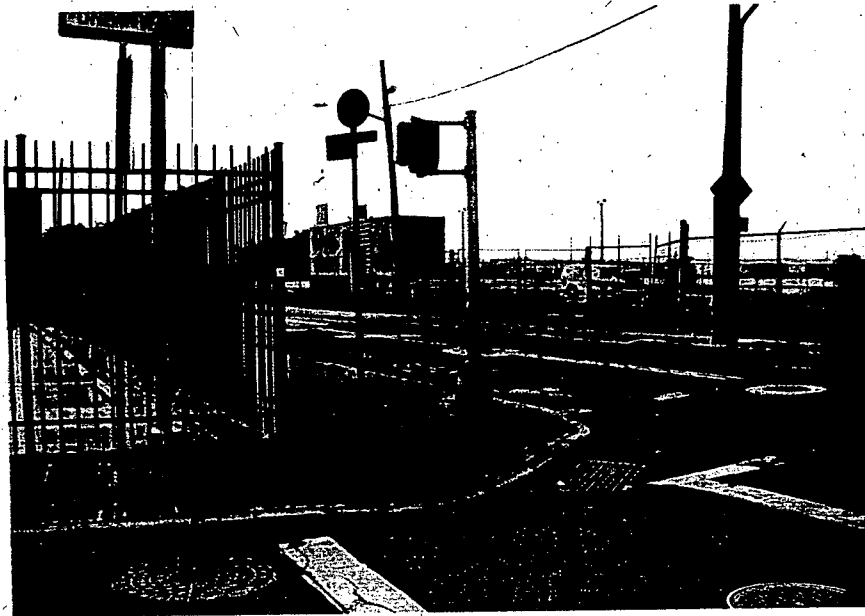


Figure 4: Con Edison's parking lot on Richmond Terrace, Livingston, 2008

History

By 1882 electricity had made its way to Staten Island. By 1887 several of Staten Island's villages had electrical power.

In 1892 an electrical power plant had been built at the foot of Davis Avenue on both sides of Richmond Terrace, in what was then called New Brighton but is now called Livingston. It was called Staten Island & New York Power House. By 1907 it became Richmond Light & Power (Rail Road) Company. In 1923 Richmond Light & Power (Rail Road) Company was sold to Staten Island Edison Corporation. During Staten Island Edison's operation it seemed to suffer from heavy financial losses and it was eventually purchased in 1952 by Con Edison.

Current Conditions

The Con Edison waterfront parking lot is capped with asphalt.

Possible Contaminants

Possible contaminants for this site are ash, sludge, boiler slag, arsenic, mercury, chromium, cadmium and PCB's.

Caddell Dry Dock



Figure 5: Caddell Dry Docks, Richmond Terrace,
Livingston to West Brighton, 2008

History

According to Borough Hall's Topo Maps from 1898 through 1907, properties along the Richmond Terrace waterfront were open space. However, shortly after that, they were occupied by F.A Verdon Company, John McCarthy & Bros. Ship Yard, then Frank McWilliams Dry Dock and the West Brighton Train Station.

By 1915 Caddell Dry Dock purchased property along the Kill Van Kull, Richmond Terrace and Broadway from a steamer and excursion boat company. In 1972 Caddell Dry Dock purchased Brewer Dry Dock in West Brighton.

Current Conditions

In 1979 Caddell Dry Dock built a tank cleaning plant and a steam generating facility used to clean barges, tankers and other vessels.

Possible Contaminants

Contaminants known to be found with ship yards include acidic, alkaline wastes, waste battery acid, lead sludge, waste water and spent baths from electroplating operations, chromium, lead and cadmium-plating sludge, asbestos insulation, volatile organic compounds (VOCs), waste paint and solvents, mercury-contaminated materials, sandblasting grit containing various metal wastes, dredge sediments and polychlorinated biphenyls (PCBs).

Van Street and Thompkins Court



Figure 6: Van Street site of the former Environmental Alternatives Company, 2008

History

Borough Hall's Topo Maps only go back to 1898 showing that at that time most of Van Street was owned and occupied by C.W. Hunt Company, as was the property across the street on the waterfront side of Richmond Terrace. C.W. Hunt Company manufactured railway freight cars, coal handling equipment, and related machinery. According to residents, the rail cars were taken down Van Street using little train tracks that ran from the C. W. Hunt property to the waterfront, where they were shipped to the Panama Canal by boat. Back in 1898 C.W. Hunt's office buildings were behind Thompkins Court Homes. Thompkins Court has been residential for as far back as anyone can remember. There are families on this street that are third- and fourth-generation homeowners.

The C.W. Hunt property was sold to Frank Murphy Trucking Company. They did all the trucking for the Gypsum Plant while the plant operated 1924 to 1976.

Current Conditions

Gaeta Interior Demolition Company purchased the Frank Murphy Trucking Company property in 1990. According to them where their offices now are, was once the location for the C.W. Hunt's Foundry building. The area is currently zoned M1.

Possible Contaminants

Possible contaminants include metals, metal dust, lead, various organic compounds, solvents, paint and paint sludges, scrap metal, and waste oils.

Thompkins Court



Figure 7: Thompson Court (parked vehicles are from local businesses), 2008

History

The 1961 New York City Zoning Code permits M1, M2 and M3 businesses to operate in proximity to residential without buffers. The zoning does not factor in for human error in terms of the potential for deadly accidents, nor does it factor in whether, or not the daily operations are conducive to residential communities.

Current Conditions

On Friday, June 3, 2005 an explosion occurred at a company named Environmental Alternatives located at 14 Van Street. The explosion caused the building to burn to the ground and blew out the windows of the homes on Thompson Court. The contents of some of those homes were also damaged. One of the residents was asked if any of the officials had been there to talk to the residents. She said, "No, not a one." Only the insurance company's representatives came.

Possible Contaminants

According to news reports the explosion killed one contractor who was trying to repair a pinhole leak in an 8,000 gallon drum when it exploded. The tank that the contractor was trying to fix contained 1,400 gallons of glycerin. It was also stated that the owners had been storing about 1,000 gallons of methanol—several hundred gallons more than they were licensed to store.

The Blissenbach Boat Marina/West Brighton Park and Boat Marina

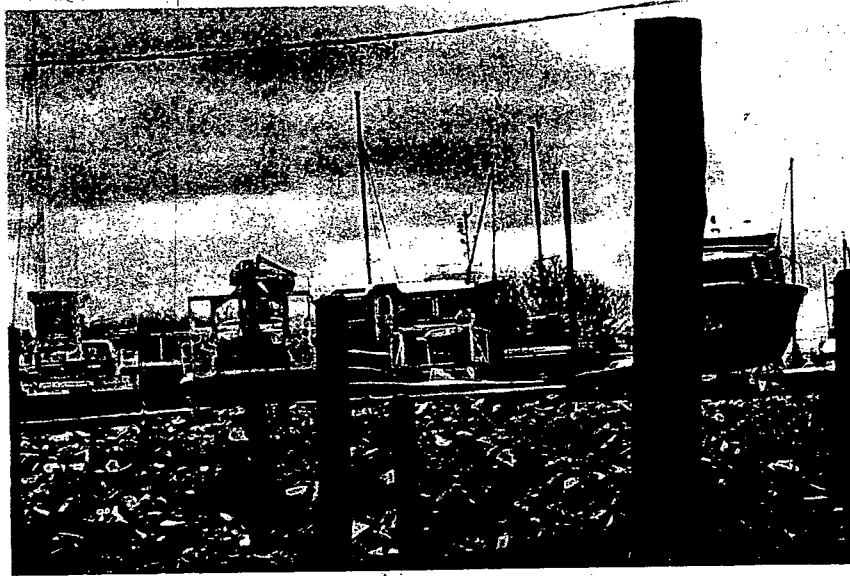


Figure 8: The former Blissenbach Boat Marina, 2003

History

According to Ecosystems Strategies, Inc.'s information given to NYC Parks Department, they had access to the Sanborn Fire Insurance Company Maps dated 1885, 1898, 1917, 1950, 1962, 1977, 1981, 1986, and 1996.

The 1885 map showed that Parcel A (possibly behind where the Marine Power and Light building is now) had the Neptune Rowing Club located on it. The map was labeled as a boathouse/boat builder and club room. The Southwest corner was submerged under the Kill Van Kull. At this point Richmond Terrace was still called Shore Road. This parcel had a regular shoreline and there were two docks. But there is another 1885 map that slightly contradicts that description showing a stable in the center of Parcel A and two docks that extend to the adjoining property to the north, with an irregular shoreline. It is partially submerged under the Kill Van Kull. Municipal water is described as being available.

By 1898 the Kill Van Kull nearest Parcel A had been filled as had the extreme southeast corner of Parcel B. Also the railroad tracks had been put in place going in an east and west direction.

On the Staten Island Borough Topo Map of 1909 there are at least four two-story possibly commercial structures right at Richmond Terrace. However, in 1909 behind the old Marine Power and Light Building (now owned by NYC Parks Department) there was a very long building along the waterfront that was the NY Dying and Printing Company. On the eastern side of the building there appears to be a smaller building but on the map the writing is faded and it is hard to identify its use.

The other structures on the western side of Parcel A belonged to C. W. Hunt Company. One property sat right on Richmond Terrace and the other was a larger structure directly on the waterfront of the Kill Van Kull. Which means a part of the boat marina that came to be known as the Blissenbach Boat Marina was built on fill. The property itself is 9.7 acres.

In 1990 a company by the name of Tighe & Bond, Inc. consulting engineers, ran tests on the (former) Blissenbach Boat Marina/West Brighton Park and Marina they concluded that samplings of soils "exhibited some contamination with hydrocarbons" resulting from repeated minor spills and leaks from maintenance operations. Higher metal concentrations were from sandblasting operations (stripping of paints and primers) and the extent of contamination was probably only on the surface. The absence of hazardous organic compounds in the groundwater suggests that the contamination is limited.

Current Conditions

The (former) Blissenbach Boat Marina/West Brighton Park and Marina was purchased for \$3 million through the Trust for Public Lands, by The Port Authority of New York and New Jersey for The New York City Parks Department for the residents of West Brighton and Staten Island. But since New York City Parks took over ownership of the West Brighton Boat Marina on February 10, 2003 it has been gated and locked from public access. In the planning as well as in the execution there should have been monies made available to complete the testing, remediation and the development of the park.

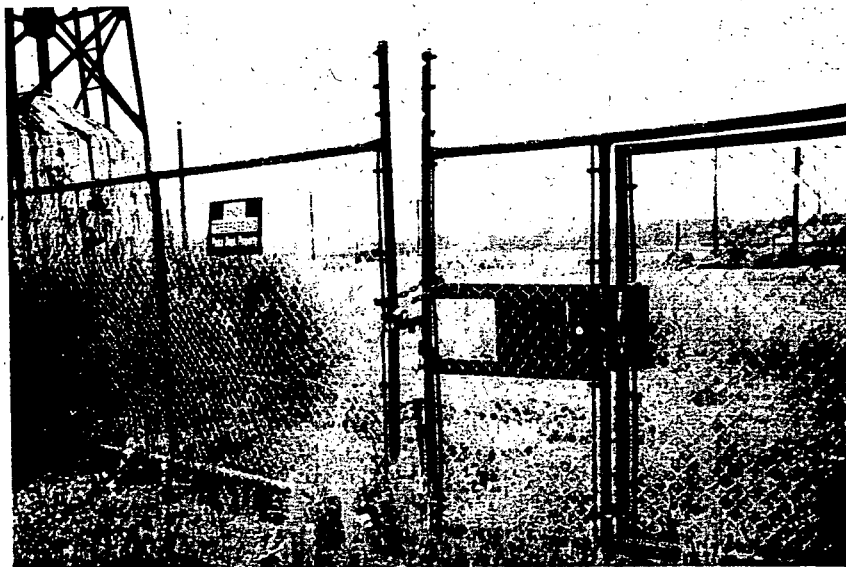


Figure 9: The gated West Brighton Park and Boat Marina, 2007

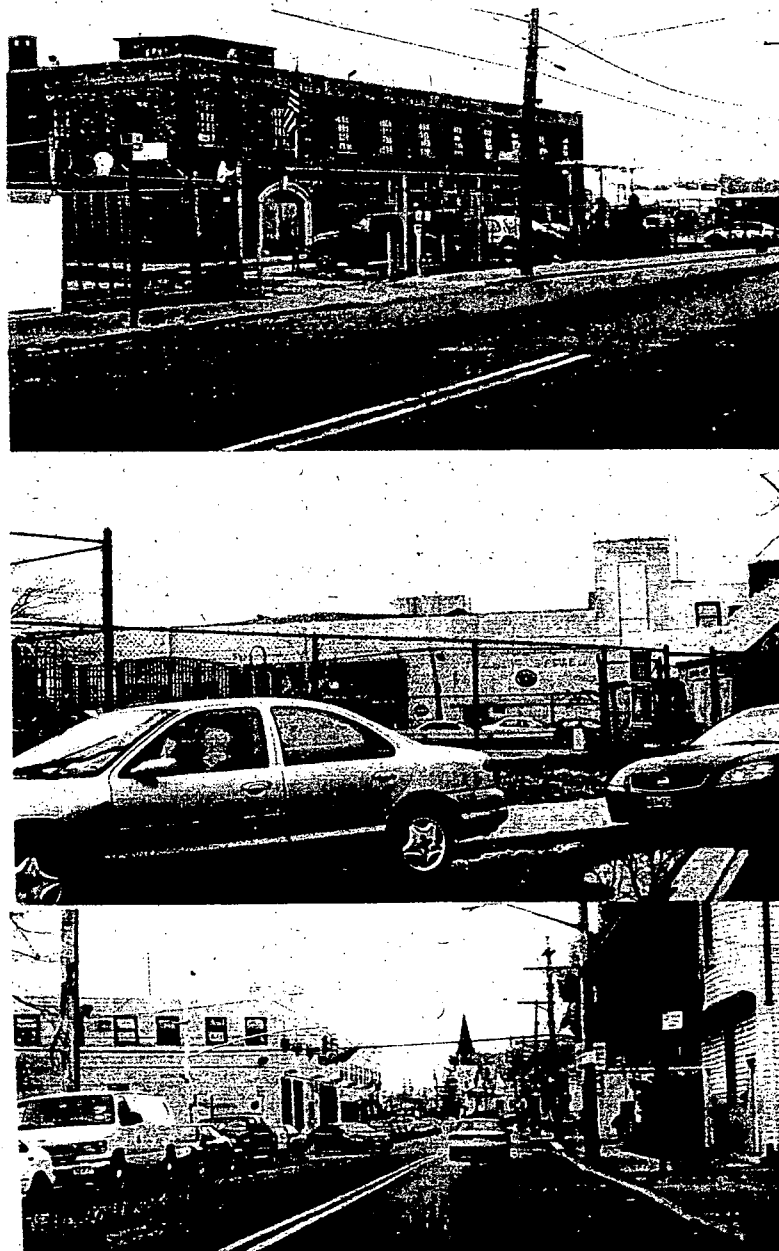
However, according to NYC Parks there has been some recent information in reference to a 1974 map and a portion of the property's tidal wetlands being filled. It does not appear to be any corresponding applications filed in reference to the filling of this wetland site. It has been decided that further testing is required.

Possible Contaminants

The printing industry would possibly have created the following contaminants: silver, solvents, acids, waste oils, ink and dyes and photographic chemicals.

Contaminants found in boat marina's include metals, metal containing compounds, lead as a fuel additive and ballast, paint pigments, pesticides, and wood preservatives, zinc anodes, copper, tin, iron, mercury, nickel and chrome.

The Department of Environmental Protection (DEP) Garage, NYCTA Metropolitan Transit Authority (MTA) Depot



**Figure 10: The Department of Environmental
Protection (DEP) Garage, NYCTA Metropolitan Transit
Authority (MTA) depot and parking lot, 2008**

History

From 1898 through 1917 in this West Brighton and Port Richmond area there was a fresh water stream and ponds known as Palmers Run. That ran from Victory Blvd and Westerleigh down to Richmond Terrace and Port Richmond into Bodine Creek and out to the Kill Van Kull. A long-time resident recalls that in the 1940s and 1950s, residents would go to the site where the DEP property and MTA parking lot is and gather drinking

water in bottles and jugs to take home. She also said that there was a fresh fruit market at this location. This would confirm DCAS description as vacant lots in their history of these sites. The City of New York and New York State eventually acquired the following lots for these uses:

- 288 Clove Road, (Block 215/Lot 46) was acquired on December 13, 1929 for the Department of Public Works. According to DCAS Real estate the site is identified as Street Cleaning Stable B and it became the High Way Yard in the 1960s.
- 1390 Castleton Avenue, (Block 215/1) was acquired February 17, 1909 for the Department of Water Supply, Gas and Electricity. The site was surrendered by Department of Water Supply and was assigned to the Board of Transportation on July 22, 1948.

Initially the MTA Castleton Depot was built to hold a maximum of 75 buses. It now has 350 buses on its property with MTA buses and other vehicles, as well as employee vehicles lining many of the surrounding residential streets. Individual members of the Port Richmond Civic Association took the MTA to court regarding its invasive operation in the 1970s/1980s. The judge ruled in the communities favor. However, none of the operational requirements won by the lawsuit were enforced by the government.

Current Conditions

In 2004 the Castleton Depot was also cited for permitting oil and gasoline to leak into the ground and underground water (Palmer's Run) from underground storage tanks. Congressman Vito Fossella held a press conference at the Depot making the announcement. The progress has been very slow in making either of these locations good neighbors and environmentally friendly.

Neither the DEP Garage at Clove Road nor the MTA Castleton Depot has received any community support regarding their operations, or their request to expand their presence in the West Brighton and Port Richmond communities. This is primarily due to the blighted conditions of their properties and what the residents have identified as their lack of respect for the communities by the DEP and MTA in their daily operations.

Department of Environmental Protection Sewer Treatment Plant

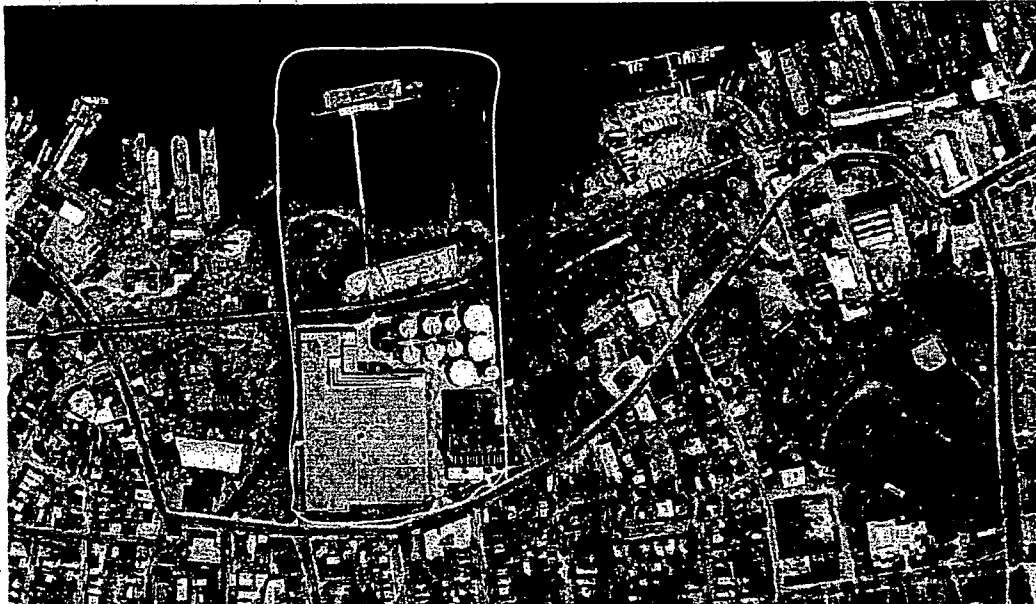


Figure 11: DEP Sewer Treatment Plant, Richmond Terrace, 2007

History

From 1898 through 1907 this property was owned by the John H. Starin Carpenter Shop and Machine Shop. The location is 1801 Richmond Terrace, West Brighton and Port Richmond

This property also had Standard Oil Tanks near the back of the property on the waterfront side in 1898, holding 100,000 gallons of oil.

By 1917 this waterfront location had been divided with several businesses occupying it, namely Wm. S. Clief Lumber Yard, Steers Carpet Cleaning Company and a business identified as a crematorium across from Taylor Street and Dongan Street.

By October 4, 1950 these properties had been condemned and the City of New York acquired them for the Richmond Sewage Treatment Plant. According to residents, at one time there was a Farmers Market located at this site.

For years the Sewer Treatment plant's outside appearance was foreboding primarily because it was a huge area often strewn with litter and without any landscaping. Residents complained to local officials (as well as directly to the DEP) about the odors that came from the plant. One of the primary concerns is the plant operator's inability to monitor air quality. In recent years Staten Island has had several incidents of unknown odors in our air, but in each case the DEP was unable to identify the sources.

Current Conditions

On August 4, 2007, the DEP Sewer Treatment Plant accidentally spilled hypochlorite into the Kill Van Kull. The spill occurred because of a PVC coupling on the

discharge side of the hypochlorite pump breaking. Seventeen hundred gallons of hypochlorites were discharged inside of the storage room. The NYC Fire Department responded to the spill. The hypochlorite on the floor was pumped into the Chlorine Contact Tanks. The level of chlorine was elevated for 4 hours. Only NY1 a local cable news only network covered the story. But it ran the story once and then it was removed from the air.

In contacting the DEP Sewer Treatment Plant it was suggested to speak with their Public Relations Department. When their Public Relations Department was contacted they denied knowing anything about it. As a last resort the EPA was contacted and they confirmed the accuracy of NY1's news broadcast. The EPA said that the amount of chlorine that was spilled into the Kill Van Kull was not enough to kill the fish.

Possible Contaminants

Contaminants associated with machine shops include metals, VOCs, dioxins, beryllium, degreasing agents, solvents and waste oils. Contaminants associated with carpenter shops include chemical exposures, dust, vapors, light radiation, asbestos, radioactive exposure and mold. Contaminants associated with dry cleaning businesses include VOCs such as chloroform and terachloroethane, various solvents, spot removers, fluorocarbon 113 and other possible contaminants at this site oil.

Sedutto's Ice Cream Factory

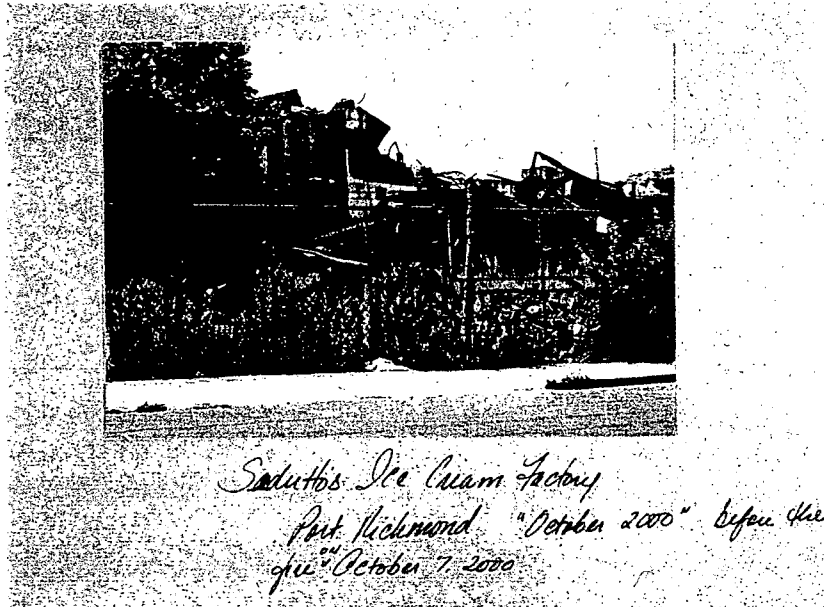


Figure 12: Sedutto's Ice Cream Factory, 2000

History

In 1839 this property and the parcel across the street on Richmond Terrace's waterfront was owned by John J. Jewett & Son's White Lead Company where white lead was produced. It remained with them until 1898, when the company was purchased by National Lead Industries (NL Industries), producers of Dutch Boy Paints.

From 1949 to 1970, the block's deeds switched hands through a myriad of private owners, with no owner of particular interest. In 1970 rights to the property went to Richmond Travel Trailers Incorporated. In 1971 the parcel went back to the Sedutto family, who declared the property officially part of the Sedutto Company, Inc. After the passing of a member of the Sedutto's family, one of the sons gained control over the property and sold it to Consolidated Foods Corporation.

In a 2007 conversation with an EPA official, he stated that during the 1980s National Lead Industries voluntarily reported to the EPA that this property is not contaminated by lead. However, during a phone interview it came to light that in 1981 National Lead Industries provided the EPA with a Shore Road address instead of the Richmond Terrace address. By this time the property had been added to the EPA's Superfund List. But when the EPA engineer came to Staten Island he went to the South shore, looking for the only existing Shore Road on Staten Island.

Due to misinformation, the address for the National Lead Industries site could not be found. Therefore, the EPA closed the file with no follow-up.

As a point of reference Richmond Terrace has not been called Shore Road on any map since before 1908.

The Lead Industries Association has been named in several lawsuits, because of products containing a lead base. In 2002 the LIA, a defendant in nearly 40 cases against former manufacturers of lead based paints, filed for bankruptcy under Chapter 7 of the Bankruptcy code (liquidation). NL Industries and others have never accepted responsibility for their product being the cause of harm to anyone, due to potential lead poisoning. But instead they have simply said that they have always functioned within the guidelines of the laws.

Consolidated Foods Corporation sold the property to the New York City Industrial Development Agency, who then sold the lots to Sedutto's in 1984. In 1987 Haagen - Dazs owned the property and sold the property back to Sedutto, which was now called Schraffts Ice Cream Company, Ltd.

By the late 1990s the site had been set on fire at least three or four times burning the remaining building to the ground. The land was cleared of the structure and debris in 2000. However, we have had no indication that any testing of this site has been done by anyone.

Current Conditions

The site was recently purchased as a speculative venture and was sold by Massey Knakal Realty Services. The current address is 2020 Richmond Terrace, Port Richmond, Block 1006/Lot 32, zoned Manufacturing 3.

Both National Lead Industries and Dutch Boy Paints are in still in existence. They may still have detailed records on the history of uses for these properties.

Possible Contaminants

Possible contaminants include lead, oils, metals and mercury.

Flag Container Company



Figure 13: Port Richmond Avenue Street end and Flag Container's enclosed property, 2008

History

The Waterfront end, at Ferry Street where Flag Container's offices are now at 11 Ferry Street, & Standard Boat Company, 2037 Richmond Terrace, Port Richmond, was the Old Municipal Ferry Service. The Municipal Ferry building stretched from Ferry Street to the street end of Port Richmond Avenue, according to the 1908 Staten Island Borough Hall Topo Map.

The eastern side of Richmond Terrace and Port Richmond Avenue is the location formerly owned by Standard Boat Company. It is now owned by Flag Container, it was once the Port Richmond & Bergen Point Ferry Service.

The ferry services at this Port Richmond street location began as far back as 1701 when it was originally laid out. According to the NYC Landmarks Preservation Commission history on Port Richmond, this area was identified as a transportation hub for three centuries.

According to Staten Island Borough Hall's Topo Map Department from 1898 until 1917, the western part of the property off Ferry Street was owned by the W. S. Van Clief Lumber & Builders & Supply Company. The eastern side of Ferry Street is now NY City owned waterfront property. In 1909 it was the Municipal Ferry.

The Ferry Street parcels had a myriad of owners from 1968 through 1979. Some seemed to be holding companies that could have leased or rented the parcels for various uses. Others seemed to be residents and families that sometimes swapped the parcels between each other. The most noted private owners were the Vanderbilts, who owned a parcel of the land in 1970. But upon the death of their patriarch in 1979, the land was willed to Eagle Auto Wrecking and Parts. Plaza Associates sold its parcel to Eagle Auto Wrecking and Parts. The Boro Marine and Industrial Corporation sold its parcel to

Colorful World of G&G Custom. In 1981 the residents once more exchanged properties among themselves, and in 1983 a public auction was held by the City of New York which sold more parcels of land. In 2002, the Standard Boat Company and Four A's Realty acquired more land.

In the 1980s Ferry Street Enterprises also known as Flag Container Company purchased the waterfront portion of the property. Flag Container Company is a private waste transfer company. The materials that they primarily handle are demolition debris which is containerized in enclosed barges until it is shipped off to the Carolinas for disposal.

Current Conditions

In 2006 Ferry Street Enterprises/Flag Container purchased the parcel formerly known by the names The Bergen Point Ferry, Mersereau's Landing and Decker Ferry from Standard Boat Company. This property has in its deed and titles a public access walkway leading to the waterfront left over from its ferry use days. The Port Richmond Bergen Point Ferry Service ended its service in 1961 or 1962.

Possible Contaminants

Vehicle refinishing and repair contaminants possibly include metals and metal dust, various organic compounds solvents, paint and paint sludges, scrap metal and waste oils. Lumber yard, possible contaminants include CCA a chemical wood preservative containing chromium, copper, and arsenic that was patented in 1838 for treatment of lumber against rotting caused by insects and microbial agents. Creosote is used mainly to preserve railroad ties. Pentachlorophenol is used to preserve utility poles.

Boat company possible contaminants include metals, metal containing compounds, lead as a fuel additive and ballast, paint pigments, pesticides, wood preservatives, zinc anodes, copper, tin, iron, mercury, nickel and chrome.

With no buffers between the current waste transfer station, residents are exposed to odors, diesel fumes, vermin, dust and dirt from the waste transfer station 24-hour, 7-day-a-week operation.

Edkins' Auto Sales Inc. and Salvage Yard



Figure 14: Edkins' Salvage Yard

History

According to the Staten Island Borough Hall Topo Map Department, in 1898 this property was residential and was owned by a Mary E. Jones until 1907. In 1917 the property was divided and shows David Jones and Elm Park Realty listed as the owners.

The NY City Planning Commission's website shows that 2 buildings were constructed on this property in 1930. In later years it was zoned Manufacturing 2 -1. Its current location is referred to as 2239 Richmond Terrace, Port Richmond.

By 1977 Edkins owned it. At one point there was Garage and Gas Station on this property.

Current Conditions

From 2006 to 2007 the Messacappa Bros., owned Edkins. There is still a residential home attached to this property. For the most part, in later years it has operated as a salvage company. Locals have come to Edkins for years for various parts. No further information involving this business is readily available.

It was still necessary to get an idea of what others had identified in regard to common contaminants found at most salvage yards. For that information a report that was done by Andrew A. Dzurik, Ph. D., P. E. of Florida State University, Florida Center for Solid and Hazardous Waste Management, produced a report: 'Environmental Impacts of Auto Salvage Facilities and their Regulation November 2000.' According to the report, the rules, standards and target clean up levels were all based on human exposure to these contaminants.

Very few salvage yards have grown with the times and updated their operational practices to what is called (BMPs) Best Management Practices. Regarding those who have updated their operation practices, they have become environmentally aware through education, and through partnering with various government environmental agencies, to improve their operations as a result there will be less of a negative environmental impact from what they do.

Regarding those salvage businesses that have not taken on Best Management Practices in their daily operations, there is a greater likelihood of finding contaminants in their property's soil, underground water sources, and possibly surrounding air. The main deterrent in keeping most salvage companies from taking on Best Management Practices seems to be the expense of testing and cleaning up their properties.

Possible Contaminants

Contaminants include: petroleum products such as gasoline, diesel fuel, motor oil, transmission fluid, power steering fluid, break fluid, engine coolants and additives. Chlorofluorocarbons (CFS) from air conditioning systems, metals such as iron, chromium, lead, cooper, aluminum, battery acid, brake and clutch linings, rubber, inflation cartridges from air bags, mercury switches, plastics, fabrics and other materials.

In addition to the above, there is a possibility that these chemicals will also be found at this type of site: total halogens, TRPH, barium, cadmium, total chromium, xylenes, benzene, Arsenic, ethylbenzene, benzo(a)pyrene, phenols, toluene, chlorometane, naphthalene, isopropybenzene, methylterbutylbenzene, polychlorinated biphenyls (PCBs) and trimethylbenzene.

Truscanti Boat Company



Figure 15: The old Archer Daniel Midlands Company and Truscanti Boat Company site under the Bayonne Bridge

History

In 1898 the Parcel was the residential property of The L.D. Johnson Estate. In 1907 the property remained residential but had been divided. In 1909 the Truscanti Boat Company owned this property. It had 4 sheds, there seems to be a pier and a 2 story framed building on the property.

By 1954 the property had undergone foreclosure along with all waterfront properties with block # 1109 by the City of New York. At present, the location is in Richmond Terrace, Port Richmond, Zoning M2-1

Current Conditions

Currently there aren't any permanent structures on this site. It is used mostly for storage of vehicles. Local residents said there was an interest at one time in building a warehouse on this parcel. But after preliminary testing of the soil revealed contamination, the deal was called off.

Possible Contaminants

Since this was a boat building business at one time, the possible contaminants include paint, paint solvents, lead, copper, zinc, mercury, wood treatment, nickel, cadmium, arsenic and oils.

Archer Daniel Midlands Company/Staten Island's Manhattan Project



Figure 16: Aerial photo of the Bayonne Bridge Port Authority Property, former ADM Parcel 1 & Truscanti Boat Company Property, 2007

History

Dean Linseed Oil Works was located at 2393 Richmond Terrace, Port Richmond from 1898 to 1916. Based on a 1909 Staten Island Borough Hall Topo Map this site location had six structures, 16 storage tanks on the waterfront side of their property, five storage tanks upland on the Richmond Terrace and John Street side, approximately where the Federal Express property is now.

By 1917 American Linseed Company owned the three parcels, and a portion of the old Truscanti Boat Company on the eastern side of Parcel 1, going in the direction of Nicholas Avenue.

On August 29, 1928 American Linseed Company divided the waterfront property; they sold a portion of the land, including that which was under water, to The Port Authority of New York. The Port Authority of New York and New Jersey still own this property. The other portion east of where the Bayonne Bridge stands was sold to Archer Daniel Midlands Company, along with parcel 2 Nicholas Avenue (9½ acres) and Parcel 3 John Street. Archer Daniel Midlands Company's corporate offices at the time were in Minneapolis, Minnesota.

The Manhattan Project involving ADM Parcels 1, 2 and 3 had become a Staten Island urban legend. The 1939 plans came from President Franklin D. Roosevelt and the Atomic Energy Commission sent only to New York City Mayor Fiorello LaGuardia. Staten Island's Borough President and other officials were never included in the discussions. Therefore there aren't any records on Staten Island in reference to its role in the Manhattan Project. To this day there is only one reference to Archer Daniel Midlands Company ever having a Staten Island location and that is in the County Clerk's office in

the deed books. It is as if their presence here has been almost completely erased from history.

According to the U.S. Department of Energy's report from 1939 to 1942 the Archer Daniel Midlands Company was operating as a linseed oil manufacturing company at the 2393 Richmond Terrace location. It was during this time that ADM agreed to store in their warehouse on the waterfront property, 1,200 tons of 65% U3O8 high grade uranium ore mined in the Belgian Congo in 2,007 steel drums.

While in transit, either during delivery to this location or when it was being sent to Canada and Ohio by train to be refined for use in the atomic bomb, uranium was spilled on the waterfront property.

Private ownership has caused a stalemate in getting these sites remediated. The uranium was privately owned by Union Miniere du Haut Katanga. Imported and eventually sold by their American affiliate African Metals Corporation and stored on privately owned ADM property. This property has not been remediated since the U.S. Government neither purchased nor took possession of the uranium until after it had left this privately owned property. Therefore, this site was not grandfathered under the 1944 agreement to clean up participating Manhattan Project sites. On December 27, 1945, ADM sold all three parcels of land to Roger Hudson Williams and Arthur Richard Earnshaw for \$100.00. At some point all of the structures on the ADM parcel 1/ 2393 Richmond Terrace were demolished but there aren't any records to indicate what happened to the debris. Also at some point a portion of the underwater property beneath the Bayonne Bridge was filled, and so was a portion of the old Truscanti Boat Company property, going towards Nicholas Avenue along the waterfront.

In the 1980s the Health and Safety Research Division of Oak Ridge National Laboratory, Oak Ridge, Tennessee, tested the waterfront property and it proved positive for radiation. In their report they identified the site as being at the base of the Bayonne Bridge on Richmond Terrace. The Oak Ridge Research Team could never get permission to test ADM's Parcel 2/Nicholas Avenue 9½ acres and ADM's Parcel 3/John Street.

By 1999 the Nicholas Avenue ADM Parcel 2 had been purchased by developers, with the intent of putting 120 to 280 units of housing on it, after its zoning had been changed from manufacturing to residential. At the same time the Army Corp of Engineers had also announced, that they planned to dredge and blast 45 feet to deepen the Kill Van Kull. While doing an independent investigation on the history of the site and its uses, residents were interviewed. The residents identified the ADM property as having something bad there but were unable to explain what it was. Other residents said that a group from the Japanese Embassy had been at the location in the 1980s saying prayers. With two projects scheduled to take place in proximity of this location it became crucial that more historic information was needed regarding this property. Everything pointed to the possibility that the ADM sites may have been part of the Manhattan Project. The United States Air Force was contacted first. They suggested speaking with old Atomic Energy Commission, which had become the U.S. Department of Energy. A written

request for any information regarding the ADM sites was made through the Freedom of Information Act.

On August 28, 2001, responding to a Freedom of Information Act request, the U.S. Department of Energy faxed its Oak Ridge Report on the history of the 3 ADM properties. In speaking with one of the scientists at the Department of the Energy, he said that there were still a number of hot spots in New York. When he was asked if the government knew about them, he responded that everyone knows about them.

Current Conditions

Archer Daniel Midlands Company's Corporate Offices are in Decatur IL.

African Metals Corporation, Corporate Offices are in Vancouver, British Columbia, Canada. Fortunately since both of these companies still exist further historical information regarding these properties may be available if proper inquiries are made.

Possible Contaminants

Possible contaminants from the linseed production include oil, and machine oils.

NSWC submitted the Department of Energy's Oak Ridge Report and our letters of opposition into the (ULURP) Uniform Land Use Review Procedure. It was necessary for the ADM Parcel 2 to go through the ULURP process because the developer was requesting a zoning change from manufacturing to residential, the zoning change proposal would have to be reviewed and voted on by the NYC City Planning Commission and NYC City Council. It was during the public comment process of ULURP for ADM Parcel 2/Nicholas Avenue (9½ acres) that it was pointed out that in the developer's Environmental Impact Assessment they had omitted this portion of these properties' history.

Although NSWC had received the Department of Energy's Oak Ridge Report, we still had no way of knowing how the 2,007 steel drums filled with raw uranium were delivered to the train. Therefore ADM Parcel 2 also had become suspect for possible contamination because of the North Shore rail line ran adjacent to the property. There were simply too many unanswered questions regarding what happened with these sites for every precaution not to be taken.

Mariners Marsh and Arlington Marsh



Figure 17: Site inspection of Mariners Marsh Park for EPA testing, 2007

History

At one time Mariners Marsh and Arlington Marsh were connected and they, as well as the Old Port Ivory and the former Howland Hook (AKA) New York Container Terminal, were all marshland.

According to Borough Hall's Topo Map Department 1898 Map, both Mariners Marsh and Arlington Marsh were owned by New York Transit Terminal Co., LTD.

In 1907 the Milken Bros. Structural Steel Iron Works owned both Mariners Marsh and Arlington Marsh. On Mariners Marsh they had their Iron Works locations with a Power Generator. Also in 1907 Milken Bros. Structural Steel Iron Works shared Arlington Marsh with NYC Transit Terminal Company and Salt Water Pumping Plant.

By 1917 the property was purchased by Downey Ship Building Corporation, Galvanizing Plant. Downey also owned the old Port Ivory site on the waterfront east of what is Arlington Marsh Cove on Richmond Terrace and Holland Avenue on the waterfront. It is now the property of the NYC Department of Transportation.

Downey Ship Building Corporation was foreclosed on while still under government contract in 1925.

The Topo Map shows a gas pipeline in Arlington Marsh in 1931. Arlington Marsh became the property of Texas Eastern Transmission Corp on November 20, 1947, and then on April 22, 1969 until 1973 it belonged to American Export Industries.

New York City took possession of Arlington Marsh through foreclosure on April 25, 1978. Arlington Marsh was placed under the jurisdiction of the NYC Economic Development Corporation and the NYC Department of Transportation.

Mariners Marsh became a New York City Park in 1997 and for years even before it was designated a New York City Park, it was under the stewardship of Mariners Marsh Conservancy.

Current Conditions

Mariners Marsh Park for the past four years has been undergoing testing for remediation after years of industrial uses and illegal dumping. It is closed to the public until sufficient funding is allocated for its cleanup and development.

After 20 years of advocacy by various environmental organizations and individuals on behalf of Arlington Marsh, in September of 2007 a portion of Arlington Marsh and its cove that was under NYC Economic Development Corporation was transferred to the NYC Department of Parks and Recreation. However, the western part of Arlington Marsh is next to New York Container Terminal (NYCT). And for many years we had known that NYCT planned to expand their operation on the Kill Van Kull. The concern is that this proposed expansion would encroach on the cove area of Arlington Marsh, impacting the flow into the cove, and would jeopardize the existence of this tidal wetland.

In 2006 a town hall meeting was held in Mariners Harbor hosted by City Councilman McMahon, Chair of NYC City Council Solid Waste Committee. There were other officials in attendance along with NYCT's CEO James Devine. The meeting was called because the City of New York was planning to transport containerized garbage from Manhattan to NYCT. Mr. Devine said at this meeting that he did not want to accept containerized garbage at NYCT, but that if the City pushed it, NYCT would not have a choice but to take it, as they lease the property. The residents attending the meeting asked questions regarding possible odors, leaching, and late-night noises. One woman expressed concern that the late night movement of the containers would keep her grandchildren, whom she was raising, from sleeping. She was assured that those types of operations would stop by 7:00 p.m. It was also emphasized that no odors would be emitted from the closed containers and that any leaching into Mariners Marsh Park would be looked into and corrected.

By law businesses and the government have to tell residents what it is that they plan to do especially if what they are planning will impact the residents. The problem is that most residents don't know what questions to ask in order to get a clear understanding of just how much of an impact this is going to make to their quality of life. There is never anyone at these meetings who has had any previous experience from a resident's perspective to interject, and tell them the other side of the story based on their experiences. So literally residents are expected to question and to answer yes or no to things that they do not fully comprehend. Which then, when the complaints start coming in, the businesses or the government can then say to the residents, but we came to you and told you what we were going to do and you said okay.

Later in 2006 and 2007 NYCT held meetings with local environment groups, this time explaining their proposed expansion. NYCT wanted to mitigate the eastern portion of Arlington Marsh that belongs to NYC Department of Transportation (DOT) into a public park that would allow for waterfront access, and try to reconstruct the shoreline on that site in order to replace the area of the cove into which their expansion would overlap. NYCT's CEO stated that he did not want a sanitation garage near the port, and that if a sanitation garage was placed there, NYCT would not mitigate that portion of Arlington Marsh by building a park, but would then pick somewhere else to do the mitigation. The environmental groups in attendance made it very clear that we were vehemently opposed to any encroachment into Arlington Marsh's cove, as we felt it would destroy the wetland. However, we were not opposed to Arlington Marsh Park's becoming a natural preserve for fish and wildlife. We also asked for more detailed information that could not be provided at that time and that could only be obtained through NYCT's submitting applications for permits and the ULURP process.

The easternmost portion of Arlington Marsh is still under the jurisdiction of the NYC Department of Transportation. This parcel was also scheduled to have applications submitted for permits and to undergo the URLUP process and then be put out for public comment. The purpose of the URLUP for this site is so that it can be turned over to NYC Department of Sanitation (Jersey Street) garage and parking area. However, in recent reports, the proposed transfer of the Jersey Street Sanitation Garage to this site had been indefinitely postponed due to budget cuts. While Mariners Marsh has 107 acres of land and fresh water wetlands, Arlington Marsh has 80 acres including tidal wetlands.

Arlington Marsh is in a peculiar situation, as on one hand the City of New York recognizes its environmental importance and on the other hand it does not. The lasting perception is that the City giveth and the City taketh away.

These remarkable natural jewels are located in communities that have no concept of their purpose or understand their value due to lack of wetland education, unlike their fellow Staten Islanders living near the Greenbelt in the mid-Island section, or Blue Heron Park Center and the Blue Belt on the South Shore.

Arlington Marsh and Mariners Harbor do not have educational centers where groups of children and adults can learn about wetlands. Or for that matter anything that has to do with Staten Island being a coastal community. The proposed relocation of the Department of Sanitation's Garage, with the proposed expansion of NYCT, and the proposed containerized garbage coming into this low-income, underserved community that is already heavily burdened with post-industrial and current industrial uses and contamination, is a textbook case of environmental injustice.

Possible Contaminants

In Mariners Marsh and Arlington Marsh's Industrial heyday residents of the surrounding area could have been exposed to contaminants found in iron works companies and ship yards.

On the Milken Bros. site there is possible lead contamination, and there could have been air emissions, in fumes or aerosol formation at high temperatures, ammonia, or lighter-weight organics such as methanol, acids and metal contaminants found in iron ore. Zinc manganese, chromium, copper, nickel, and lead are the six metals transferred by the greatest number of facilities.

Acids used during steel finishing such as hydrochloric sulfuric, nitric and phosphoric acids, plus solvents, light weight carbon byproducts, trichloroethane, trichloroethylene, phenol, xylene, methanol, and toluene could be present.

At the Downey Ship Yard site a variety of industrial wastes are found in large quantities include scrap metal, waste oils such as hydraulic oils, cutting oils, oils contaminated with polychlorinated biphenyl (PCBs), spent cleaners, solvents, lead paint, paint sludges, thinners, residues from sandblasting, asbestos, battery electrolytes, plating wastes, and solutions from cleaning boilers.

Hydrochloric acid's toxicity in aerosol form is implicated in causing and exacerbating a variety of respiratory ailments. Ingestion and skin exposure to high amounts can result in eating away of skin tissue.

Ecological effects include accidental releases of solution forms of hydrochloric acid which may adversely affect aquatic life by the transient lowering of the PH and increased acidity of surface water.

MMT (methylcyclopentadienyl) manganese tricarbonyl in gasoline and ambient exposure to manganese at a level sufficient can cause adverse neurological effects on humans. Chronic manganese poisoning has similarities to chronic lead poisoning.

The North Shore Rail Line



Figure 18: Staten Island Train Trestle on Park Avenue that is one foot away from a home, 2000

History

On the 1909 Borough Hall Topo Map the North Shore rail line can be seen extending from St. George to Arlington. According to the 1995 North Shore Railroad Revitalization Economic Impact Study presented by the Staten Island Borough President's office, the North Shore rail service was for passenger, as well as local and long distance freight services. The rail service experienced an economic peak during the 1930's. At the same time the NY Metropolitan Transit Authority had established bus service and was competing for riders. By the 1960s and 1970s the railroad industries had started to go bankrupt and the industrial revolution was in decline. The passenger rail service from St. George to Arlington officially ended in 1953 and the freight service ended in 1984.

The old North Shore train tracks run along side of the Kill Van Kull from St. George to West Brighton, with right of way access through most of the waterfront manufacturing businesses, until it reaches Port Richmond it becomes elevated. In Port Richmond, several homes sit anywhere from one foot to 50 feet from the train trestle. Residents who remember the old train service complained about noise and vibrations from the train.

Since 1995 there have been many conversations and a few studies regarding revitalizing the North Shore rail line. It has been suggested that it once again provide a

combination of freight and passenger service. One study proposed a double track that would allow for double-stack freight cars. The plan included finishing the old freight tunnel from Brooklyn to Staten Island that was started in the 1930s. Most residents who had never lived near the active rail line were in approval, until they found out that a portion of the tunnel would be running beneath some of their properties before emerging aboveground once it reached the Livingston and West Brighton waterfront. There had been little opposition to the idea of the train running through Port Richmond to Arlington with the possible displacement of residents. But there was a great deal of opposition to the dredging, excavation and the tunnel running beneath the more affluent areas of the North Shore of Staten Island.

During this time other suggestions regarding the passenger light rail service were introduced, such as widening Richmond Terrace and re-instituting the trolley service that operated in the 1800's. Another suggestion was for Rails to Trails that would include bike paths.

However, in reference to using the existing train tracks in the revitalization of the North Shore train service, there are some things that should be taken into consideration including the new safety and noise codes. Most codes require sound and vibration buffers. Basically that means that a certain amount of footage would be required on both sides of the track, so that proper barriers could be constructed to reduce the noise and vibration levels to the nearby homes. As mentioned it would seem that some of the residents that live in these homes would have to be displaced, if the plan is to use the old tracks. Also in the NYC Economic Development Corporation's 2001 Study and Environmental Impact Assessment, it became clear that a freight service would not be advisable, considering the proximity of the residential communities from Port Richmond to Arlington in relation to the current location of the tracks.

Current Conditions

In the current housing market, displacement of residents in communities like Port Richmond, Mariners Harbor and Arlington is not just displacement from these communities; it is pushing these residents out of the City and State of New York. These residents would find it extremely difficult to find affordable homes in other communities in New York based on the money they would receive for their current homes.

There is another consideration regarding the homeowners in Port Richmond, Mariners Harbor and Arlington. Some of these residents acquired their homes through family inheritance. Forced from their homes by the railroad, such residents would incur new expenses, including mortgage fees and higher taxes.

There is yet another request for another study, this time a Feasibility Study for the North Shore rail line. Although the passenger service may reduce some of the passenger vehicle traffic on the road, giving frustrated bus riders another alternative to get to the Staten Island Ferry and other areas around the island. There is still the problem of suitable commuter parking along the North Shore. That needs to be addressed since most large parcels of land in proximity to the train tracks are privately owned and most would have to be tested for contamination.

The Army Corps of Engineers' Seven-Year Blasting and Dredging Project in the Kill Van Kull (1999-2006)

When the Army Corps of Engineers (ACOE) announced with very little fanfare that they were going to blast and dredge to deepen the Kill Van Kull by 45 and then to 50 feet. Many residents had no idea in what way they would be impacted. As a matter of fact when ACOE and their contractors had an open house to explain the blasting projects, only a hand full of people showed up. By 1999 the blasting and dredging project had begun and now the residents, who were home during the day, began to understand how this project would affect them.

The ACOE contractor began blasting three times a day, six days a week and in the evening residents could hear their dredging machine, as it scooped up the rock and dropped it into the floating containers in the Kill Van Kull. Any resident who complained to ACOE was put on a list and ACOE and their contractors would come to the resident home with a digital camera. Taking pictures of the property outside as well as throughout the house.

In some cases they would leave a machine to monitor the levels of vibrations and aftershocks from the blasting. The first contractor told residents that anyone 1,300 feet from the water would not be able to feel the blasting vibrations. However after awhile the Army Corp of Engineers increased the distance to 1,500 feet. Regarding public notification to the residents there had been a blurb in the local newspapers. ACOE sent out only 500 letters notifying residents, which they identified as being in the affected area. But there are approximately 62,000 people that live in the waterfront communities.

Residents had little in the way of resources to support their objections. ACOE had scientists, charts, engineers, and Power Point presentations. They also had the U.S. Surface Mining Guidelines that stated that they were well within the required level of explosives that they were using for the project.

Many waterfront residents from Port Richmond to Arlington noticed cracked foundations, windows broken or cracked, walls sagging, or, in some cases, falling ceilings and garages taking on water, added to that the sunken promenade at Faber Park, which was eventually closed to the public. Residents who contacted their insurance carriers were told that their homeowner's insurance policies didn't cover damages caused by blasting and dredging. Some residents said that their policies were cancelled by their carriers during this time.

Livingston residents suffered sleepless nights from the sound of the dredging machine. Rich Brown, president of the Livingston Association, was quoted as saying the sound was like being in a dentist chair having your teeth drilled all night long. The elderly who were at home during the blasting reported that it took place three times a day, were the ones who had it the worse, as they could hear the loud blast followed by having their homes shake around them. Residents who worked during the week and were out of their homes before the first blast, would wake up to the first blast that took place around 7

in the morning on Saturday, the next blast at around 2:00 or 3:00 in the afternoon and with the last one at 7:00 in the evening. No one was immune.

Residents could file complaints about this seven-year blasting and dredging project only with the Army Corp of Engineers, their contractors and Staten Island elected officials. The City's 311 Complaint Hotline was never told how to deal with Staten Island resident complaints concerning vibrations or noises related to the project, therefore no complaints were collected by 311. Residents would often compare complaining to the Army Corp of Engineers to the fox guarding the hen house.

The residents who lived in the impacted waterfront communities were not in a financial position to hire independent engineers and attorneys to represent them. Also most had only received an engineers report when they initially bought their homes, if they had that. Some of the residents, having inherited their homes from family members never had an engineer inspect their homes. Nor did most have pictures of their homes before the blasting project began to compare with what they were claiming the damages were once the project had begun.

In one of several meetings that we had with the Army Corp of Engineers, we asked; how did they know that these homes were even structurally sound enough to withstand the blasting levels? Where had they gotten their information regarding the structures on the North Shore? The Army Corp of Engineers said they had gotten their information from the City of New York, which would mean the City Planning Commission and the NYC Buildings Department. Based on current and past history it seemed that it was highly unlikely that there was any recent information regarding the structural integrity of all of these structures.

After hearing the Army Corp of Engineers continually say that they were within the guidelines of the U.S. Surface Mining Code levels with the blasting. The residents started asking if there was any way to raise those guideline levels, so that the blasting noise and vibrations would be less disruptive to their quality of life and reduce the level of the aftershocks from the blasts. At the urging of local officials the Army Corp of Engineers hired a private engineering firm to study the situation. It basically concluded that their equipment was functioning properly. That was not the concern of the residents. After hearing the resident's complaints about the Surface Mining Guideline the private engineering firm said that it would make recommendations to the U.S. Office of Surface Mining and the Mining Health and Safety Administration to raise the requirements to lessen the noise and aftershocks with the blasting.

The NSWC asked if there would be any kind of clean up or mitigation along the waterfront of the communities that had lived with the blasting and dredging project for 7 years. The waterfront is filled with floating debris from old abandoned piers and boats that over the years had made their way to our shores. We were told mitigation clean up of the shore line had not been a consideration. We were also told that the Army Corp of Engineers was only responsible for keeping the waterways clear of debris. That they were no longer responsible for removing debris from the New York City and New Jersey waterfronts, they had provided those services for years. But in the last 7 years they

discontinued doing so because neither of the two state governments would agree to pay for the service. NSWC explained that it would have been a nice gesture if someone had thought of the residents during the process, and included cleaning the shore line of the communities that had been impacted by the blasting and dredging project.

After all was said and done, the Army Corp of Engineers didn't have to pay restitution to any of the residents for seven years of disrupting their lives and for what they called unfounded property damage claims.

Shoreline of Van Name and Van Pelt



Figure 19: Van Name and Van Pelt on Richmond Terrace Waterfront, Mariners Harbor, 2007

The North shore has many locations that are potential mitigation projects because they are littered with old pier, boat wood, and debris. These locations could provide public access to the waterfront.

Traffic

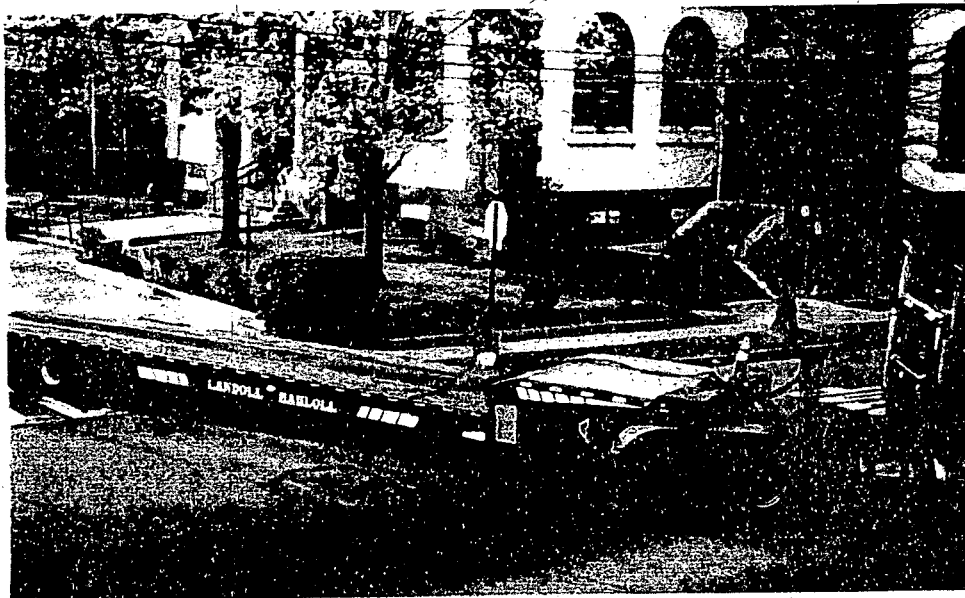


Figure 20: Off route oversized flatbed tractor trailer turning on Heberton Avenue, Port Richmond from Bennett Street

In terms of truck traffic Richmond Terrace is a nightmare.

NSWC asked for a health study to determine if the manufacturing zone operations and their truck traffic were a contributing factor causing illness in the communities. We were told that it would take too long to do such a study and that there were too many variables. But what we did receive was a street cleaner to try to keep down the dust and dirt.

The local designated truck routes are also our main streets and are in horrible condition. Often times tractor trailers, private buses and the MTA buses will take a short cut and use residential streets to avoid the potholes, flooding and traffic. They bring with them noise, dust, dirt and diesel fumes. The vibration of these vehicles shakes our homes. For years we tried to get the Department of Transportation to put up No Truck Traffic Signs within our communities. They refused, stating that the City of New York didn't believe in negative signage. Even though we had shown them pictures of DOT issued signs in middle class neighborhoods that said No Truck Traffic. In some cases the signs had height and weight restrictions. They told us it was a NYPD enforcement issue. We spent years running in circles trying to stop off route truck and bus traffic from using residential streets.

It was only about 2 years ago that NYPD and the City of New York finally admitted that most patrol car policemen never received training in the traffic laws. Therefore, residents would be hard pressed to get any of them to issue summons to off route tractor trailers and buses for using residential streets. For the communities off of Richmond Terrace it is the dust, dirt and fumes that seem to bother us the most.

Upper respiratory problems are common among the young and old. The City of New York and NYPD said that they planned to come up with a way to train the police personnel so that they would be able to identify and issue summons to illegal truck and bus traffic in residential communities. So far it hasn't happened.

When these oversized vehicles use residential streets, it is not long before these streets develop potholes, grooves and cracks in the asphalt. Due to the height and size of some of these vehicles, the damages vary from broken tree limbs, knocked down overhead wiring and broken sidewalks from wide turns. Vehicle parking and idling is also a problem. Many residents are not informed enough about traffic laws to report these violations. Even if reported there is a lack of police enforcement.

Parking

It is impossible to talk about traffic without also discussing the lack of parking spaces. On Staten Island every person that lives here and can drive has a car. Therefore if you have 5 drivers in a household and you have a garage and driveway that only gives that house 2 - off street parking spaces it means the other 3 drivers have to park on the street. For older communities 2 out every 3 homes require street parking because homes were built before cars existed and they don't have driveways.

Location, location and location

For areas mixed with schools, libraries, churches, community centers and clinics that were not designed and built with parking spaces on their properties. You will have employees, visitors and residents competing for street parking spaces, which can and does get ugly, especially if events are held frequently and late into the night.

Other cities such as Cleveland, Ohio have shown to be more progressive than the City of New York. Cleveland's government recognized how the inability of residents to be able to come home at night and park in front of their homes was causing stressful situations, thereby reducing the quality of life for those residents living near community institutions such as; University Hospitals of Cleveland and Case Western Reserve University. Cleveland instituted Resident Parking ordinances that are in effect from 7pm until 7am to allow residents the ability to come home and find a place to park without difficulty. Participating residents are issued stickers for which they pay an annual fee of \$25.00. Signs are posted indicating resident parking hours and that all others will be towed at the owner's expense.

Other areas on Staten Island that have public transportation spots like express bus service or ferry services, may experience a similar situation. The only difference may be that by the time those residents get home at night the commuters are usually gone.

Conclusion

Sometimes it feels like we are in a big machine and that everyone is on an assembly line just doing their job. It doesn't seem to matter whether or not, what they are doing connects with what the next person is doing. Therefore whether or not the end product is actually able to do its job is also irrelevant, making the end product substandard and inadequate. That's what it's like being a second class citizen. You know that things could be better if everyone really wanted it to be, because there is proof in other areas that it can. But it never happens where you live and least of all in a way that benefits the community that you live in.

Appendix: Chemical Terminology

The following list is intended to provide a general idea of the risks of commonly occurring chemicals along Staten Island's waterfront to humans and our environment.ⁱⁱ

Arsenic is a poison that can lead to death by multi-system organ failure.

Asbestos is a known carcinogen. Mesothelioma is a form of cancer resulting from exposure to asbestos.

Barium at low doses can act as a muscle stimulant, but higher doses can affect the nervous system, causing cardiac irregularities, tremors, or paralysis.

Benzene is carcinogenic, and inhaling it in large amounts can lead to death. Chronic exposure to benzene damages bone marrow and can decrease red blood cells.

Beryllium is a toxic carcinogen, especially when the dust is inhaled.

Boiler slag is the molten bottom ash collected at the base of slag tap and cyclone type furnaces that is watered down. Boiler slag is a desirable material for the making of asphalt and aids in the melting of snow. It is not readily available because of the removal of aging power plants.

Cadmium can cause tracheo-bronchitis, pneumonitis, and pulmonary edema. Inhaling cadmium-laden dust can cause respiratory tract and kidney problems that can be fatal.

Chromium, chromium metal, and chromium (III) compounds are trace metals not usually thought of as health hazards. However, hexavalent chromium (chromium VI) compounds can be toxic if orally ingested or inhaled. A lethal dose is about half a teaspoon of the material. It is an irritant to eyes, skin, and mucus membranes. Chronic exposure can cause permanent eye injury. It is also a carcinogen.

Copper is toxic in excessive amounts. Thirty grams of copper sulfate is potentially lethal in humans, and too much copper in the water can also damage marine life, causing gill, liver, kidney, and nervous system problems.

Creosote is used as a wood preservative and a disinfectant. Long-term exposure causes skin irritation, chemical burns of the surface of the eyes, kidney and liver problems, unconsciousness, and death.

Cyanide is toxic. Hydrogen cyanide has an almond odor to it, though some people have a genetic trait that prevents them from detecting the almond odor. Sunlight can release cyanide gases into the air. Exposure to cyanide can impact the respiratory system, central nervous system, and the heart, shutting them down if not treated.

Diesel fumes are said to cause non-fatal heart attacks, asthma attacks, chronic bronchitis, thousands of hospital admissions, lost days from work, and millions of restricted activity days.

Dioxin exposure at high levels has increased cancer risk. Studies have shown impacts on reproduction and development.

Ethylbenzene can be hazardous to humans depending on the dosage, the duration of the exposure, the individual's body makeup, habits, and whether other chemicals are present. It is also a carcinogen.

Ferric-ferrocyanide is considered a toxin and falls under the Environmental Protection Agency's list of cyanides in the Clean Water Act. When not handled properly cyanides can affect respiratory breathing, the central nervous system, and the heart causing death.

Iron in moderation is actually good for humans and for ocean plankton, but excessive iron can be toxic because free iron reacts with peroxides to produce free radicals that are also highly reactive and can cause damage to DNA, proteins, lipids, and other cellular components. High levels of iron in the blood can damage cells in the heart, liver, and elsewhere, causing long-term organ damage and death.

Lead poisoning can cause irreversible neurological damage, renal disease, cardiovascular damage, and reproductive toxicity.

Mercury is a toxin and exposure to it can cause insanity. The phrase "mad as a hatter" originates from the hat manufacturing business that used mercury in the shaping of the animal skins on the hats. Exposure can also cause deformities and kidney failure.

Methanol is toxic by two methods regardless of how it enters the body (ingestion, inhalation, or by absorption through the skin). It can be fatal due to its CNS (central nervous system) depressant properties similar to ethanol poisoning. It is also toxic when it breaks down in the liver by forming formic acid and formaldehyde that can cause permanent blindness by damaging the optic nerve. Fetal tissue will not tolerate methanol.

Nickel, nickel sulfide fumes, and nickel dust are thought to be carcinogenic, as are other types of nickel compounds. Nickel carbonyl is an extremely toxic gas and can be explosive in the air. Nickel contact can also cause an allergic reaction with the skin.

Polychlorinated biphenyls (PCBs) cause both carcinogenic and non-carcinogenic illness in humans, affecting the ability of the immune system to fight off viral infections and disease. Pregnant women exposed to PCBs show a decrease in how long the babies were carried to term based on length of exposure. Children born to women who were exposed to PCBs in factories showed decreased birth weights, resulting in a reduction in neurological development in the babies as well as complications involving thyroid hormone levels.

Salt is corrosive to metals and wood and is a drying agent. In high concentrations it can kill any living thing.

Silica is a compound of silica dioxide can lead to silicosis or cancer.

Sludge is the residual semi-solid material left from industrial, water treatment, or waste water treatment processes. In recent years the handling of sludge has become controversial. Health complaints have also arisen from exposure to sewage sludge. After 1991, Congress banned ocean dumping of sludge.

Terachloroethane is a hazardous air pollutant, and depending on the length of time that a person is exposed to it, can lead to eye and respiratory irritation and liver damage. It is also listed as a possible human carcinogen.

Toluene fumes can be intoxicating. A large dose can cause nausea. Toluene can enter into the body through vapor inhalation from liquid evaporation, soil contamination, and ingestion of contaminated groundwater or through vapor off-gassing. The body is unable to get rid of toluene through normal body functions (urination, defecation, or sweat). Untreated, it can cause cell damage.

Trichloroethylene is a depressant to the nervous system. Humans can come into contact with it through contaminated soil and water exposure. Trichloroethane is not considered a toxin, although chronic exposure has been linked to abnormalities in the liver, kidneys, and heart. It is advised that pregnant women should not be in contact with it as it causes birth defects.

Uranium ore is radioactive. As it degrades it becomes radium, which is also radioactive, as radium decays it becomes radon gas, which is also radioactive. Inhaling it, injecting it, eating it, or general exposure to it can cause cancer and other disorders that can eventually cause death.

Volatile organic compounds (VOCs) emit odors into the air we breathe in enclosed areas such as homes, offices, and buildings, as well as the outside environment. Under the right amount of pressure or heat they can be explosive. Such common items as paints, paint solvents, varnishes, moth balls, gasoline, newspaper, cleaning chemicals, vinyl floors, carpets, photocopying, vehicle exhaust, and air fresheners contain VOCs. Acute exposure can cause eye irritation/watering, nose irritation, throat irritation, headaches, asthma exacerbation, nausea, vomiting, and dizziness. Chronic exposure can cause cancer, liver damage, kidney damage, or central nervous system damage.

Xylene is a solvent. Exposure to high levels can lead to irritation of the skin, eyes, nose, and throat, as well as difficulty in breathing and lung problems. Continued exposure can lead to unconsciousness and death.

Zinc is used primarily as a coating for metals that are exposed to corrosives to prevent them from rusting. It is also used to avoid sparking hazards in storage tanks containing flammable substances.

References

ⁱ <http://www.nyc.gov/html/dcp/html/pub/si.shtml>, New York City Department of City Planning, "Plan For The Staten Island Waterfront," 1994.

ⁱⁱ References: Wikipedia, Environmental Protection Agency, Environmental Research Foundation, National Institute of Environmental Health Sciences, EPA's Air Toxics in New England, Detroit News on Viking/CRSS waste burning and The Lincoln, MI., Agency for Toxic Substances & Disease Registry.

Additional References

Staten Island's Borough Hall Topo Department,
Staten Island's County Clerk's Office, U. S. Department of Energy & Health and Safety
Research Division Oak Ridge National Laboratory,
Commissioner Randy Fong DCAS Real estate Office, The New York Times,
The Staten Island Advance, Department of Environmental Conservation,
The Environmental Protection Agency, Alliance for Healthy Homes,
Notes for a History of Lead: And on Inquiring Into the Development of the
Manufacturing of White Lead, by William Henry Pulsifer.

New York City Economic Development Corporation's Scope of Work for the Cross
Harbor Freight Movement Project Environmental Impact Statement, Caddell Dry Dock
and Repair Co. Inc., website, The New York City Buildings Department, The New York
City, City Planning Commission, The New York City Landmarks Preservation
Commission, The New York City Department Parks and Recreation, Staten Island's
NYC City Planning Commission, The U.S. Army Corp of Engineers, Old Staten Island
Tripod, New York Container Terminal, New York/New Jersey Port Authority, Atlantic
Salt Company, Environmental Impacts of Auto Salvage Facilities and Their Regulations
by Andrew A. Dzruik, Ph.D., P.E. Florida State University System of Florida, Florida
Center for Solid and Hazardous Waste Management.

A History of American Manufactures from 1608 to 1860 by J. Leander Bishop, A.M,
M.D. Troxill Freedley, Edward Young, The New York City Waterfront Revitalization
Program, Research Assistant Jessamyn Lidasan, Mr. & Mrs. Red Glorioso, The Staten
Island Register, Mr. Jack Hynes, Wikipedia, PlanNYC, The Staten Island North Shore
Light Rail, The New York City Department of Transportation, The Staten Island
Transportation Task Force, The New York City Wetlands Task Force, Citizen's Coal
Council Hoosier Environmental Council Clean Air Task Force.

The North Shore Railroad Revitalization Economic Impact Study, Presented by the
Office of the Borough President Staten Island, New York, Business Week Real Estate
article; Is Your Town Toxic? Ecosystems Strategies, Inc, Margaret Landrigan's Staten
Island Isle of The Bay, The Making of America Series, Community Walk website-
Maritime NY Cultural Resources created by Zhennya.

The Mayor's Office of Cleveland Ohio, The Ohio Department of Transportation, Penn
State's News Release Archive from Penn State's College of Agricultural Sciences, New

York Public Library's Staten Island Colonial Slaves, New York Public Library's Staten Island's Old Names, New York, Report: Staten Island Open Space: The Trust for Public Land, Guide to Contaminants Found at Contaminated Industrial Properties, Andy Wilner of New York, New Jersey Baykeepers, Reed Super of Riverkeep, Inc. and The New York Times Archive Articles.